Like 4C but body green instead of ocher.
Hd reddish with an orange shade over apex
eye black, mouth brown, shining, w 2.2mm
legs flat 6-annulate, smooth, not shiny
ground glass pale green, varying a little
towards olivaceous; in marks, d vessel dark
reddish, its edges defined but not
showing a band, the green a little streaked
longitudinally s-d. Thx. feet moderate,
clear, abd. rather small 6-13. Tracheal
line white but not prominent. Found
with 4C by sweeping grass Jefferson Highlands
N.H. June 17 '95 but rare only ½ dozen.
Stage hd 2.5± (next) Face whitish, vertex testaceous, a broad
curved blackish upper band joins the eyes over Δ. A cloud
in Δ and on back of head at center, eye & sutures around
antennae black, mouth brown. Bod all green, almost
emerald green 6-annulate, a little granular under
lens in marks. D vessel dark, tracheal line
whitish; thx. feet clear. S-v circolaxons with dorsum

On grass Jeff. Highlands, N.H. June 17 1895. Feet
6-11 small or 13. Hd pale testaceous, brownish
over vertex, eye black; w. Body pale green
6-annulate, minute blacks setae n. 2d 4 to
annulet 4 s-v fold; a broad s-d blackish shade
defined laterally, diffuse above and shading
into dorsal area, leaving tubercles pale; 2
ant and anal plate pale; s-v faint shade
with blackish along the fold; s-d shades
into tan brown in oblique light in folds.
Feet clear, a fine brown line on basal joint

On grass Jeff. High, N.H. June 17 1895. Like 5M and 4C but grayd. and white substantially. Hd large, polished, lower half whitish, upper half & only the sides of the vertical patch blackish gray, eye black. Feet 6-13, segs 7-annulate for the most part & 6-annulate. Dorsum & spiracles silvery & brownish gray, an obscure white stg line 2 ant, 13 post and all s-v and feet whitish, s-v fields sometimes narrowly brown marked. The feet clear with an oblique brown mark at base. Anal shade darkened laterally; d-vental a dark band. ("A ½ of hd dark, dark shades on s-v folds; brownish gray" B only a geminate dusky patch above eye on each lobe, body silver gray, s-v white) another A dorsum silvery gray, pale d, so that edge from a band. a B acquired the row of gray spots along s-v folds, but hd still pale at a eye. a B (hd 1.9) shed and became A (hd 2.5)
2 went down without overcoming. Hds too large for body

On grass Jeff. High, N.H. June 21 1895. Marked very like 5H but feet 6-12, 13. Hd pale testaceous, a little shagreened, an orange tint toward vertex and a black patch at vertex of each lobe; eye black, mouth brown w. 1.8 mm ± Thorax a little enlarged; body shining, 6-annulate, anus 5 & 6 very small. D. obnubilus green, vessel not contrasting its edge obscure; bounded by a stg white band s-v pale, whitish, a honey tinge on feet and black shades at base of the feet. Anal plate pale, with blackish shade at the sides. 2 ant shagreen pale formed a cell at bottom of can made ground strengthened with piece of wood bitten off a chip

very like preceding, but hd. all black above
On grass, June 21. Hd whitish all of water
black reaching down broadly (& narrows back to occiput) ending in a
point on eye, but indented at the side
by a point of green color; △ black, separated
by a narrow curved band of green color from
apical patch. Body olivaceous greenish to
white stg. line, ended c translucent
Edges of d. vessel thick, showing corded
white but not very evident. Feet 6-13
s-v corded honey yellowish. The feet pale
marked with black on joints, 2 marks on
basal joint. Hd 1.8 mm ± Mott Hd 2.0 Same
shiny corded olivaceous a hard blackish
red shade, showing tawny brown in folds.
D. vessel a dark shade. a yellowish
tinge. Died

a green of sweep off grass or weeds, did not eat
Jefferson Highlands June 20. Hipba thin wide,
thick, uniform, neatly 6-annulate. Hd. pale
with a blackish tinge, eye black. Body uniform
emerald-bluish green, no marks at all
all the annulets nearly lined with smoky
blackish over the dorsum. The feed center
small clear. Shape suggests Unmorphodens
Probably in ground stage: food plant unknown
Hd 1.5 ± Shed 1.4 Larva was uniform green with
not the dusky hearts (recollection) Shed with
a testaceous tinge, eye black with a dusky
shade behind it.
"Unmorphedum sp. cf. vera atratus Harr"
Mac S.

5 S

On Azalea, Jefferson Hills, N.H. June 23 1895.
Edge eater, solitary, feet 6-11, faint on 13
eating tee young leaves.
Hd pale green finely brown dotted all over except
a narrow space bordering brown clypeus, eye
black, w. 1.2 Sep. faintly marginately 5-
annulate shiny green, d. vessel dark
tracheal line evident; no marks except
latter dusky rings s-v. defining the obsolete
tubercles which can just be distinguished
d. with lens though perfectly concolorous
Anal prong very short, remote, finely bicurved
black tipped. Setae very fine and short
Tho. feet clear with brown claws.
Became stained with dusky blackish on the
annulet, bringing out the tubercles more
distinctly, even dorsal ones; entered pond
Jungo March 22 1896

Azalea in up Pond

molt July 18 Hd pale white, eye black, a little darker
shade at vertex. Bod annulate, shiny emerald
green, no marks. Trace of fat red line as a continuous
yellowish shade (lens) but does not effect appearance
(green)

5 T

Curls spirally on back of leaf of Spiraea salicifolia
Jeff. N., N.H. June 23 1895 (thought = 30 but feet 6-13)
Hd with 2 genes before vertex, forming an X-mark
with clypeal suture in front view, brownish
pale below, eye in black spot. w. (Sk Hd 1.3) mm. Sep
6-annulate, scarcely shiny, pale brown, yellow
fore shading green & giving a green appear-
ance; no marks, tracheal line obscure
Tho. feet clear, brownish tinged, moderate.
Body of nearly uniform width, rather square
post. molt June 25 (Sk Hd 1.6) Hd 1.3. pale, rather all orange
brown dotted. Same. Curled with tail up.
Later a row of yellow fat granules, rather
irregularly scattered but a continuous line
molt July 6 Hd. 2. pale a dirty light rusty brown
shade on vertex nearly black eyes. Bod strongly
annulate, yellowish green with continuous yellow
s-d narrow fat line, below it a darker shade
being concolorous with d. from fore contrasting s-v.
feet clear brown claws. No point seen. Lateral fat
line absent or trace, a little patching diffuse
yellow. Larva all quite yellowish

5U = 3H

Identical with 3B but larger on Populus tremuloides Jefferson Highlands, N.H., June 24 1895 Edge eaten, fitting leaf, feet 6-11, anal prongs pointed, black tipped. Hd 1.7 mm pale green, brown dotted, a blackish stripe in △ and median suture, another up from eye, curving back to join faint s-d shade on 2-3 eye black with white spot, mouth brown. Body leaf green, slightly shiny, not annulate but slightly creased, a single rst annulet well folded. No fat clear, tracheal line evident, narrow, spiracles & d-vessel dark. No tubercles anal feet very small.

Moved a little shiny to cocoon June 25

Imago stage 1895 / Cocoon large brown firm

Probably = dorsivittatus

5V = V

Little s-f like Hybotoma on alder, Jefferson N.H. June 24 1895 Eggs in oval cuts in the edge of the leaf, another out, 1.5 x 1.2 mm Hds .55 shiny black Body whitish, front green Thx feet, except joints, g tubercles in □, s-v ridge feet outwardly, anal plate & sides black feet 6-10 black spots post.

Molt June 29 Same Hds .75 Body green tubercles black, hds pale brownish red (Like V)

Same as V. Put out.

5W. July 13 Hd 1.4± pale brown, the face white, a black faced bordered white behind runs up from jaw. Antennae black ringed; a + shaped black shade in △. Och & spot black. Bod translucent whitish, an opaque s-d & s-v white shade leaving the rest grayish; a black mark at base of fort on 2. Tarsi prong white. Anal plate ridged as usual but immaculate except a central d. shade on anomal continuous with d. vessel.

Molt July 17 (Sh hd 1.5) Hd. dull green, white on △ and an area around it; ant. black with narrow white ring at end of joint. eyes black. a trans. brown line at side of hd. post. W (L8+7). last. & s-v spots dark transfacet. a s-d & s-v opaque white prominent band, contrasting; central sh. narrow black, a large s-d shiny spot. Anal plate and prongs white, the 3 concavities of dorsal pl. dusky greenish. Prongs black tipped. Plate petiform with minute brown tubercle. The feet white a black spot at base of fort on 2.

July 22 Hd 2.2 green, a cream white blotch over △ and adjoining; ant. ringed white & brown, eye black. just behind white marks a labrum. no shading. c-sh. crossbars white, bod, no black except a little spot at base of fort on 2. Anal plate and process faintly white, spotted, ridged as usual, no minutes, the dorsal green in the 3 hollows. Bod green, shaded with faintly white on a.c. the annulet especially in a s-d and s-v band which are creamy white, distinct making the interspaces appear transparent green on ant. third. Post. the bands become diffused and spread into the general white shading. same white on venter s-v ridges folded post. Legs 5± annulate.

went down July 28

Calc. .56 .70 .88 1.09 1.37 1.71 2.14 ratio .80
Found .55± .75± 1- 1.1± 1.4± 1.8± 2.2

5W

singly
2 eggs on back of leaf of Amelanchier canadensis
free on surface close to midrib, translucent very very
petiole. Cylindrical with rounded ends, soft
shining white at first colorless translucent
later opaque white from embryo. 2.2 X .6 mm
Larva forms folds double (ventral) hd as wide as egg.
Hatched June 27 a little Lyda. Hd cant. very pale
brown shiny, uniform, eye black. Bod normal
entirely white, rather opaque. Anal process
also white as small unused thor. feet. No
abd feet. Began at once to spin web. Hd. .55±
Molt July 4 (Sh hd .75±) Hd pale brown eye black, ant
apparent black ringed. Bod white, milky on the
annulet, feet & processes shiny; no black markings.
Hd 1mm — July 8 Hd. 1.1± brown with a dusky shade
in △ & a narrow transverse one behind eye; eye
black, antennae black ringed. Bod whitish, rather
milky, ch & s-d spot shiny blackish. Pleurae
& feet white, a little black line at base of fort
on 2 & tip of anal process black. Plate con-
colorous. D-vessel narrowly dark.

15XB

Out April 1896 = Harpiphorus!
[= Harpiphorus maculatus?]

On yellow flowered strawberry, Fox Lee N. J. May 31 '96 a tiny brown spot below eye & dot at back of occiput or vertex *

5XA Three of the 5X matured with a spotted head. Hd 1.15 pale, slightly brownish a dusky black cloud on apex and a smoky darker patch behind. a little above the black eye red like 5X but no points seen. Black dot on anal pl. Another 4 traces of black patches on hd. Another hd 1.2 Black patch on vertex constricted, but distinct widening behind above Δ. Lateral patch joins eye by a point. Traces of a dusky black lateral band on body

II
Jul 5 Hd. 6 black velvet more dark, smoky black

Hd 1.4 Hd pale brown a black patch at top a trans. one behind eye Bod cured, 6-annulate traces of white points in 2d & 4th whitish, not shiny a greenish shade d. separates from the white S-V by a smoky black band; segments dusky patches. Small □ black patch around. Traces of a geminate dusky d. shade.

Other with constricted apical patch same lateral shade almost continuous. D. more distinct

Shed ♀ grown 25 Hd crested whitish a leader patch in vertex Bod shiny well leaden d. smoky blackish spotted last S-V wavy white Hd 1.5 ± 3

#5XB intermediate stage like 5XA as a bread [illegible]

40A

	.7	.4	.65	.8	1.0	1.3	Sp. ♀
Calc.	.27	.39	.56	.8	1.4	1.63	
Found	.25	.4	.6	.8	1.1	1.5 ±	

Out Apr 9 = Harpiphorus!!

[See 40A] 5X [= Monistegia iquota?]

Curled spirally on strawberry leaf Jefferson N. H., June 25 1895. Hd. 5 ± Molt June 6 Hd. 6 pale brown, shiny, eye black. Bod whitish, not shiny 6-annulate, dusted but lava so small hard to count, food plex no venules. Curls up abdomen

Another hd. 8 Sept 6 annulate. Bod green glaucous whitish not colored by food. Feet 6-13. Hd very pale brown, shiny, eye black, jaws brown. Thorax a little larger than abd. Hd large in proportion.

Hd. 25 Same but darker, blackish around eyes. Bod whitish, not shiny annulate. Same

Shed hd 4 (Hd hd. 3 ±) brown, eye black. Bod whitish pale shining, annulate, same.

Jul 9 Hd 1.1 Tibia 2.5 but no spots. Green a faint dusky lateral band, spots distinct on 2

Stage hd 1.5 ± Hd bright pale brown, uniform, eye black a pinkish water, each tube 2-4 enlarged. Most basally, lateral outline very even. Segs neat, 6-annulate with minute blunt white points on 2d & 4th. Whitish not shiny, a faint green tint dorsal. Thorax darker green from the long cuticle full of food the great pistons of al. Canal head empty in moult. Dressed green. Thos. feet clean with brown tips. A minute black dot in centre of anal flap. Trachea very distinct. Hd a cuticle. In all cuticles pale green a faint smoky red black shade on Hd same

wallowed July 4. Bod nearly uniform except d. vessel and rim yellowish

5Y

Solitary Lyda on Populus tremuloides, Jeff, N.H. June 26 1895 in a portion of leaf simply turned over & fastened with strands of gummy web. Hd greenish white, rather opaque, thickly brown dotted over vertex & down to mem. Δ a pair of brown black, transverse bands, 2 on each lobe from above eye to mem. med. suture. Shining. Eye black, long. antennae pale yellow color & 3d spot on 2 black, shiny. Bod wrinkled 3-annulate, whitish green with d. lat. & S-V more translucent & ∴ darker green bands and ridged. Anal plates white rimmed ^ 2 black patches on anal plates. Processes pale. Hd 2.3 ± (Sk hd 2.2) Thr. feet small, pointed, pale remused July 30 Hd. same; mandible brown lined, black at tip. W 2.5 mm ± S-V folds and annulets distinct. Bod all without black except a line on 2 at base of thr. fork, antennae all white; 2 spots on anal plate. Folds & annulets all opaque yellowish green, in folds & a d. & S-d band without the opaque green & consequently clearer green. Thr. feet, rim of plate & processes pale yellow. Face creamy white.

5Z

A colored S-f, edge eater on Amelanchier canadensis, Jefferson Highlands, N.H. June 26 1895. Feed 6-11 those on 6 & 7 large & well developed, used; on 8-11 small, not used; past half of bod more or less curled up. Hd rounded, vinous brown. A dotted smoky black shade in Δ & over vertex confluent with a darker one of front edge. Eye black, W 1.5 ± Segs about 6-annulate pale vinous, an olive black d. band, tearing off oblique branches on 9-11. A series of creamy white fat patches, oval, bud of granules next d. line, largest 9-11 where they burst the oblique branches. Tubercles blackish, smooth, obsolete d, but distinct laterally, S-V, apparently on 3 annulet. Processes & thr. feet brown, thr. not clear, yellowish. Turned all pinkish to wallow July 1

Also on Prunus serotina and P. virginiana Aug 1 1895. Another hd 1.1, pale brownish a black band on vertex. Same another hd 1.1 but bod very much smaller, the annules hardly discernible. Pale vinous, front green, a row of faint whitish S-d fat patches, obliquely cut.

6A = 2C

Little Hy Istria on strawberry Jefferson highland
W.H. June 28 1895. Feet 6-10 anal 11, a
pad on 15; the feet large. Hd pale brown
darker through the middle. The feet brown,
black marked, body green with a white
s-d line. Black-dots scattered indicated
lines of pale on d.v. folds. Hd rounded. 8 a
[illegible] with black [illegible]
[illegible] a [illegible] [illegible]
[illegible] body green, a white s-d line, no pale
[illegible] [illegible] [illegible]
[illegible] colored. (Sh hd 1.1)

Hy Istria July 3 Same as 2L = 2C Hd 1.4

Hy Istria July 7 (Sh hd 1.4) Hd. 1.7

Pupal down July 11

6B

Lydia on Viburnum opulus Jeff. Hy, W.H. June 27 '96
Stage hd 1.8± green, eye small black, mouth brown
ant. long black ridged. Body uniform green,
almost emerald, no marks, d. vessel dark; anal
plate ridged, the ridges black, scarcely white
anal processes whitish. A small, geminate
dusky black mark on 8th. Black anales at base
of the feet small, feet pale. Segs deeply [illegible]
Stage hd 1.4 very pale ([illegible] marks come). Some
transverse 8th (except central [illegible]) & s-d after stig
black. Segs strongly [illegible], a little wrinkle,
pressure, marks black marks on base of the feet
Anal plate & processes are obscure, [illegible]
[illegible] and [illegible] stigs.
Stage hd 1.6± Pale brown, blackish on vertex and ∆
eye black, mouth brown, ant ridged. 8th no black
[illegible] but only a trace of black at base the
feet. Body dusky white, scarcely green except for [illegible]
[illegible] 1.5± but later 1.8 hd. 8th with dark [illegible]

6CA. July 15 Hd [illegible] [illegible] eye black [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] annulate
[illegible] Hd 1.8 [illegible] [illegible] [illegible] [illegible]
[illegible] 7 [illegible] [illegible] like 6C
[illegible] Hd .75 [illegible]
[illegible] a [illegible] [illegible] [illegible]

6C VI

[illegible] on [illegible] [illegible] 9 96

Hd rounded, eye black, a large black patch in ocellar, [illegible] slightly [illegible]. Segs 7-annulate, [illegible] black [illegible] on 2d and ult. Body tapering a little [illegible] straight or curled [illegible], feet 6-13, [illegible], translucent, not shining, appearing green from [illegible] except [illegible]-V, a faint black lateral shade bounding the apparently green area. A single small sooty black dorsal spot. Hd 1.2 [illegible] [illegible] [illegible] the feet [illegible] with [illegible] [illegible]. [illegible] 1.[illegible] Hd 1.9 [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] granulate, some [illegible] black [illegible]. [illegible] July 8 annulate [illegible], all [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] black, [illegible] [illegible]. [illegible] [illegible] Hd 1.9 [illegible] [illegible] [illegible]

[illegible] April 29 1896 [illegible] [illegible]

6D

On larch [illegible] on [illegible], N.Y. July 3 1895 Hd pale brown, dotted, eye black, a pale [illegible] line [illegible] Δ, width 1.4 ± Segs 8-annulate, last two folded feet 6-11, 13 Body green, shaded with opaque [illegible] green pigment* 3d [illegible] broad, leaving [illegible] translucent [illegible] lateral straight line and a little [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], the [illegible] [illegible] with [illegible] [illegible]. Solitary [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible], [illegible] [illegible] [illegible] [illegible] pale line and [illegible] line [illegible] white. *The [illegible] green [illegible] granules are [illegible] along dorsal, [illegible] [illegible], [illegible] line [illegible] [illegible] line straight distinct white

[illegible] Spring 1896 19

~~[illegible] [illegible]~~ [illegible]
[illegible] [illegible] [illegible] [illegible]

6E (of 6L)

resembling 4M on red berried sister, sent from Franconia N.H. by Mrs. S. Lesson. (See Hum 95) Affinity of bd shiny black, lower white. Body stocked almost continuously with black in all the interstices above spiracles & esp. in a broken pale red line, very slightly pestered but crowded of black a post ½ of each seg. Anal plate black. Feet 6-13. Segs 7-annulate. [See 7K]

6F

Commencing apical end on Hex verticillata Jefferson N.H. July 6 1895. 7-annulate, 6-13. Whitish, proof translucent, no marks, but thinly bd green, bd dark gray above spiracles from contents of alimentary canal. Bd feels heavy as black spec; shiny ± the first pair.

July 9 bd 1.4± Same. Resp. bar a slaty, or gray reference, [illegible] [next comes]

July 22 bd 1.8 (evening jacket) bd feels heavier with eye black. Body annulate, emerald green shining, uniform, no marks.

Shiny, strikingly shiny on black back & under side, white. Hd deep shining black. w. J. sem. Body as usual, colder whitish. Fwd pecs; thoracic feet all pale, nearly colorless, a delicate brownish especially claw. Feet 6-12. Tracheal sac festooned, inconspicuous the spiracles at apices of the seg. arches. (with fol.) Entire and shiny whitish, ceruleus tinged, eye black. Feet, hind coxae with body.

Like, rose S-f on fine cherry, Profile House, N.H. July 11 1895. Hd. 6 black, shiny. Bod, whitish fwd pecs, feet 6-11, B, seg. scarcely undulate with 2 rows of low cross rows, rests for seg. fearing shard fine setae - bod. pilose. Head hairy, feet clear, this brown tipped. Hd 1.1 pale, slight bistre, a large black spot on 1st seg. and one eye which comes forward in a chord across Δ. Hairs in 3 rows on 3rd. Side about pale fog with the remainder, a broader black band on tarsi 3-4 which blends with color of all canal first like a continuation of it. Feet whitish. Anche of Bof white, Hd. brownish. Blackish as above. Hd. 1.1 same but body with direction is almost from middle of L to middle of 13 inky leaden black except for numerous pale hairs which are the tubercles bearing the fine setae scattered in irregular groups in the well defined 3 annulets. 2 and, 13 for 4

and all S-V whitish translucent, also feet. 6-11, 13. Hair short & very fine, dark brownish, pale S-V. Hd finely pulverulent, tip pale pent. Maxillary palpi white.

Found in fading rotten potatoes leaves f.S.G. [illegible] 3 pairs branch, eye black. Rec. white [illegible] from [illegible] of [illegible]. Specimen [illegible] Aug 7 1895

Thorax = 3N

Found on yellow birch leaf, Pelham N.H. Aug 19 1895. 1.0 & 8 black of head & black pale. Found then around New York City on several plants esp. L. & Charnie Sept 1895.

Also noted during Bronx Park May 1897.

Found on [illegible] Sept 19 [illegible] 1896.

Sf solitary, curled on leaf of red terminal elder. Jaffrey Highland, N.H. July 14 1895. Hd whitish, a moderate, rounded defined black optical patch, eye in black spot w. 2 ± mm. Bod as in Strong specimen, feet 6-13, tho. occasionally [illegible], its feet moderate. Whitish cache of eye, fold occasionally showing, no [illegible] 7 annulate, very indistinct, [illegible] trans. mid orange in 2-3 annulate, first a trace of color occasionally showing more than the first orange band of the leaves. Prothorax [illegible] indented, white, the spiracles showing as white expansions. Joint and anal flap immaculate.

Also Same but no orange bands, [illegible] [illegible] black patch [illegible], but more eye [illegible] [illegible] patch between a [illegible] of [illegible] by black [illegible] [illegible] slightly [illegible] [illegible]. Hd 1.6 ± for [illegible]

[illegible] 1896

6J

On yellow birch in the woods, Jefferson Highlands N.H. July 2 '95. Hd 1.4 whitish, brown tinged with vertical black patch [illegible] over eye but both very large, diffuse on edges and anteri- [illegible] lobes black, with a pale patch [illegible] on sides of lobes, shiny. [illegible] black lateral bars, [illegible] a square velvety black dorsal patch [illegible] whitish, a black shade along sides of thoracic feet. Segs mostly 6-annulate, annulet 2 a little larger. [illegible] a little enlarged, [illegible] Feet 6-13. [illegible] [illegible] ish, Head moderate and prominent.

July 23 same but [illegible] pale [illegible] of [illegible] green. 3d ?

Carc. .64 .8 1.1 1.4 1.76 2.2 ratio 80

gen... Apr 27 1896 [illegible] remota [illegible] 76

6K

Cuts [illegible]

On yellow birch with 6J. Hd large, [illegible] with groove before vertex of lobes like 6C, pale below, [illegible] above shiny, eye black [illegible]. 2 small [illegible] slightly tapering, feet 6-13. [illegible] translucent and shiny, [illegible] whole length, plainly visible. Thorax [illegible] as well enlarged. Segs finely and mostly 7-annulate, but [illegible] distinct, slightly folded. [illegible] very distinct. Hd 1.8 [illegible]

July 22 Hd 2.2 Same.

[illegible] black [illegible], annulate, [illegible] Head [illegible] 2 & 1.5 mm [illegible]

[illegible] 4 & 7.8 [illegible] (.25)

[illegible]

(Ent) (in B.C.) Dyar 1898. [illegible] [illegible]
"macrophya in. sp. near flavicosta [illegible]

6L

Spiral curl on elder with 6I with which it was confounded till it shed July 21. Head bright brown immaculate (see 6I) eye in large black spot, almost wavy on vertex. Skin as 18 mm ± body greenish white, not shiny, a darker black of stripe and a very distinct velvety black lateral one broken into 2 squarish patches on 3 and 5 annulets [illegible] of [illegible] shadings, [illegible] extends on 13. [illegible] band greenish black, a little dark [illegible] just [illegible] Segs mostly 6 annulate, feet 6-13, the [illegible] anal plates immaculate. Later [illegible] very [illegible] annulets as in 6I anal flap [illegible] orange. (Cult[illegible]) [illegible] Shed [illegible], hd brownish with blackish [illegible] shade, eye black, body [illegible] [illegible] [illegible] [illegible] rather distinct [illegible] annulate, the [illegible] [illegible] [illegible] annulets (1-3 and 7?)

6M

Taken [illegible] on Epilobium, Jefferson Highlands N.H. July 23 1895. Hd pale brown shiny, a little darker on vertex, a ∆ eye black; w .5 Body waxy white but not shiny, food green, evident. Segs mostly but obscurely annulate. Thorax a little enlarged, feet 6-13, otherwise colorless.

Next stage, July 27 Hd .9 pale brown, a ∆ patch of ∆ on vertex a shade darker, [illegible] around the eye. 5 mm thorax a little expanded and flatted. Segs regularly & evenly 6-annulate, the annulets closely flattened, their creases just like reg. creases, shiny, evenly depressed which makes the annulets [illegible] surface as before waxy white, the [illegible] [illegible] shiny appear in [illegible] [illegible] rather long and slender.

[Egg in a [illegible] under leaves [illegible] near the margin solitary 1.5 × 1 mm.]

Next stage Hd pale [illegible] body shiny waxy 6-annulate [illegible] [illegible] [illegible] plated [illegible] [illegible]) Hd 1.2

61

Egg eaten on gooseberry, Jefferson Hghlds N.H. July 28 1895. Feet 6-11, 13. [illegible] clear

Hd. 1.2 rounded, flattened before, a black [illegible] shade bordering sutures closely and a band up from black eye nearly to vertex, ground green. Segs clearly 6-annulate with minute short black setae on 2d & 4th and elevated [illegible] sub-v region. Green [illegible] a [illegible] markings, [illegible] shiny, eye black. No anal fringe. A very faint trace of a tint of yellowish in stig. region.

Std. 3 shining black-brown, eye black. Body (thin [illegible] [illegible]) pale green, darkened from food, spiracles black.

Std. 2 shining black, body whitish green, food seen [illegible] the thoracic feet ringed with blackish.

Std. 1 brownish, eye black. Body colorless, food green, thr. feet black ringed with pale.

Egg in elliptical cups between 2 [illegible] on the edge of leaf, a [illegible] smaller than [illegible] (3 [illegible]) solitary.

Pristiphora grossulariae

(rel. ex with [illegible] fly)

Calc	.52	.65	.82	1.0	1.28	1.6	2.0	2.5	2.8
Found	.5	.65	.8	1.0	1.2	1.6	2.0	2.5	2.5

60

Large cases curled spirally on back of leaves of Cornus *alternifolia* Jefferson Hghlds. N.H. July 30 1895. Gregarious. Feet 6-13. Very many on one bush the leaves half eaten off.

VIII

Hd. 2.5 mm but small for body, lower than 2, all black, slightly or scarcely shining. 2 and 3-4 venter and feet to 13 orange yellow. Dorsum to spiracles olivaceous black, annulet 2 in middle except last and whole of annulet 4 to the s-v color pale greenish gray, both interrupted by the olivaceous d. vessel. Segs 6-annulate, the 2d & 4th with minute setae. Anal plate black darker than dorsal marks. Thr feet spreading, pale yellow, not very large. Abd. feet all well developed. Body large & gradually tapering post. end of 13 rather truncate (and [illegible] sloping from middle of 13 to anal plate) Length about 25 mm, width [illegible] the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] colour and pale.

V Females as Nd. 1.2 shining black, coxt or spot pale yellow, dorsum and pale abdomen without marks, slight shine, [illegible] dark, length 12.

VI 1.0 brownish grey black or dark brown [illegible] pale yellow, [illegible] pale green, [illegible] brownish, feet [illegible].

VII 1.6 Nd [illegible] a black band [illegible] flanks [illegible] white [illegible] no marks, [illegible] [illegible] 1.5 [illegible] angle of wing [illegible] and [illegible] from above. Check [illegible] in a long line, the costa [illegible] on middle or long vein [illegible] and wings [illegible] of [illegible] indentation [illegible] 1 mm, length 4-30 mm according to [illegible] [illegible] 8 mm [illegible].

[illegible] (Nd. 1.2 [illegible] 1.5 [illegible] II

[illegible] (Nd. 1.2) [illegible] except that the of pale markets are light blue instead of greenish grey, the black is black rather than olivaceous and the stem is very slight more shining. Nd 2.4 at least 2.4 mm.

VIII 1.6 (Nd and 1.2) shining black. Coxa & 5-7 feet yellow, d. with a blackish [illegible] on each seg. a whitish ground, i.e. marked as in next, but colour of pale parts [illegible] more like as to appear as the ground colour. [illegible] 1.6 (older) specimen dealed with may flies as just like markings but markings fainter.

Stage VII 1.0 [illegible] (not stage but marks a little [illegible] though not) fainter than some [illegible] specimen, distinct of bright [illegible] than 1.6 stage. Stage II

III [illegible] 1.4 [illegible] 7.5-8 mm costa blackish [illegible] [illegible] no marks. Stage [illegible]

Stage IX [illegible] [illegible] costa, [illegible] [illegible] [illegible] [illegible] [illegible].

Cast [illegible] 4 [illegible]

6P = M

Allied to M and 4J as Cerrus paniculata or stolonifera Jefferson Highlands N.Y. Aug 1 1895. Stem is rooting, straight, the few slight spreading, and 6-11, 12 stems erect but d. 1 (6?), or orator pistil, R. by gradually tapering point, 12 rounded. Hd numerous large, wider than 2 w. Sarum which covered, esp. black. Sep. accrescent, acute, acutes indentich, 6 acute. All wrapy which translucent, a ring of five green granules bordering dual accrescent indening on the tissue into a 3 lobed pole the largest in 2 with clear centre. Air range shade in 11. Feet colonies. No fruit seen (imp?) except a large one in Nov 12.

(=M. The Cerrus was under an Racing Caution condenade)

Oct Apr 16 1896 6Q Hl. Minta

6CA. Jul 17 on Robinson Opinion Hd. 8 and 12 slight brown, esp. black, on water. Roy immaculate pet. or 1 stem, on water well accurate.

Hd 6 Same. Must July 25 Hd. 7 on water = 6CA

July 31 Hd. 1.2 A fl. black on flower two stamens in bud. on wind right.

Hd 1.5 Jul 21 Robinson in vestry, [illegible] esp. black, [illegible] no number. [illegible] spiraling and [illegible] July 27 [illegible]

6QA Hd 1.4 [illegible] black [illegible] 13 feet with faint [illegible] on wind plate. 5-8 very white [illegible] range [illegible] Aug 11 [illegible] Aug 12 [illegible]

[illegible] edge eater on yellow birch, [illegible] not
[illegible] [illegible] as any described (cf JE [illegible])
Feet 6-11, 13, [illegible], [illegible], [illegible] [illegible]
[illegible] Hd pale brown with a brighter
brown shade of [illegible] eye and [illegible]
in [illegible] [illegible] at [illegible] eye blade
a 1.0 mm. Very [illegible] indented or
obscurely [illegible], clear pale green
without [illegible]. Pedicel [illegible] [illegible]
[illegible] pale. Edge of [illegible]
[illegible] 1.3 (= 5I with [illegible] [illegible]) [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] of [illegible] [illegible] [illegible]
[illegible] of [illegible] [illegible] [illegible] 2-12
[illegible] blue [illegible] [illegible] [illegible]
[illegible] [illegible], the [illegible] [illegible]
the [illegible] [illegible]

[illegible] Aug 18 Hd 1.85 [illegible]

Aug 18 [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] 5I

Like L but whitish, [illegible] [illegible] [illegible]
Jeff Wyle, 14 Aug. Aug 15 1995. Sb has 1.2 blade
Hd 1.5 [illegible] blade. Sit on edge of [illegible]
Feet 6-12, 13 [illegible] [illegible]. Sepa very indistinct
Granulate, in 2D & 4D [illegible] [illegible]
a [illegible] [illegible] [illegible] each with [illegible]
[illegible]. [illegible] [illegible] [illegible], [illegible] [illegible]
a blade [illegible] [illegible], [illegible], even, 3-12
a pair of short [illegible] [illegible] blade [illegible] [illegible]
5-8 [illegible] [illegible] [illegible] 2 [illegible] blade
darker. The [illegible] blade, [illegible] of [illegible]
Hd 1.8 [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] blade [illegible]
[illegible] connect to [illegible] [illegible]. The 5-8 blades
[illegible] a [illegible] [illegible] [illegible] the [illegible] 5-8 [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

GT

On Creep near Dennison Wash. Washington Co. UT
by J. L. 1895. Test 6-11. edge entire.
[illegible] shiny textureless sp. Hab. 1.3
[illegible] first-second a broad adaxial and
[illegible] white band, the former edges of the
[illegible] pulvinus & [illegible] veins,
the latter [illegible] abaxial of a blackish
[illegible] and brit. in test
no. 13, the former showing as a black thread
[illegible] edge indication of what
is a complete test in [illegible].

Mesquite Ground 21 1896
Vegetation extraordinary
but bearing as all the rest. Washington Co. Ore (Marshall)

Same tree in bloom. Test 11, Hab. leaves [illegible]
shorter and [illegible] with [illegible]
but with less general [illegible]
[illegible] on which [illegible]
[illegible] 6 [illegible] [illegible]
[illegible]

[illegible] 18, the [illegible]
[illegible] 27 11d 1.2 [illegible]
[illegible] 48 [illegible] a [illegible]
[illegible] 11 [illegible] 6 U [illegible] (7.8 L)
[illegible]

Lilac Secondaries dwarfs but bear blade Orig
on very young leaves of Sandberg, found in [illegible]
shoots from a stump, Test 7.11, Sept 2, 1895.
Head [illegible] flesh, a little [illegible]
[illegible] w. 1.2 mm [illegible] [illegible], [illegible]
[illegible] and [illegible], [illegible] edge, [illegible]
[illegible] from [illegible] [illegible]
[illegible] green [illegible], [illegible]
at end of 13, [illegible] [illegible], the
first [illegible], [illegible] with [illegible]
[illegible] not [illegible] [illegible] 2 [illegible] [illegible]
the [illegible] are [illegible] test [illegible] 6-11
41 [illegible] length 9 mm. [illegible]
the [illegible] leaf between the [illegible] [illegible]
[illegible] a [illegible]
[illegible] of the [illegible]
[illegible]
[illegible] May 24 1896 Hab/H. 6 [illegible]
[illegible]

(of 6R, 5I etc) 6V = 5I = 3M

Edge center on high bank Knockalaboy, Jot. Lat. 6-y. Sept 3 1895. Jent. 6-11. Hd pale testaceous grounds a brown shade eye, b w lin; dorsal one on thorax, ejecting on D. w. 1.3 mm. Body clothed pers, rarely clothed, veiled a distinct black band edged with a large pear shape of pale powder which fades off the wing base and forming a wide dark band with pearl color. On 13 d. 2 sd fat stripe the end is solid, filled with pale fat, sup. neither distinctly 2-segmented. 5-6 pores visible on stick. Tip not faintly brownish. Cercus the end of both anus is clear underneath. Penis like

Hy Ufn 18 1896 = Prisopus libiale

Another from Jordal Bayou 1897 Brown

Cole. .92 .60 .84 1.2 1.7 2.4 not .7
Fried " .35 1.2 1.6 2.1

Euscelinus fily Phasgo rafs
7A

Solitary edge cover on grey beam of white oak. Van Cortlandt Park, May 9 1896. Seen in stage I. Hd round oblong black-brown, .4 mm. Body hairless blackish, 6 scutels, with two rows of about 8 dark pale pleurodorsal spots, antels 2 1/4, about 6 on each side. Tract of lime pale; fed 5-12 May, short pale color in back. Eat whole leaf on edge. Wolf Way 11 Hd .75 Oct 6, faintly brownish eyeblack, a very wide and rather vertical shade of pure eye. Body whitish, semi-transparent colored by fat, [illegible] hind, fleshy, leaden tipped. Still resting on edge. Knottberry Ridge, varied 1.6± grey pale brownish on a [illegible] leaf, sometimes dusky. Body semi-transparent waxy white and shiny, 6 complete minute white spots on D. w. No anecdos. Frontal line white, inverse fringed. Can cut when at rest. Tried not his confusion

This is very near F and comes [illegible] [illegible] with
FA. The [illegible] [illegible] [illegible] of F's [illegible] [illegible] and
the [illegible] patch in [illegible] fold is not of the 2-V [illegible] of F.

(Very like G F q.v.) [illegible] 17
[illegible] on a [illegible] [illegible] May 22 1897 Cut
Something like F [illegible] [illegible], but [illegible]
[illegible] a [illegible] [illegible]. Solitary egg [illegible].
Egg Hd. 1.6 [illegible] [illegible] [illegible] eye [illegible] [illegible]
smooth brown. Body [illegible] translucent [illegible]
[illegible] with a tinge of yellowish [illegible] the
[illegible] plain white. Seg. 6-annulate [illegible]
obsolete, not [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] black
patch [illegible]. [illegible] 3 [illegible] [illegible] the
[illegible] [illegible] fold [illegible] a [illegible] [illegible]. Tracheae
[illegible] [illegible]. [illegible] [illegible] [illegible] [illegible]
indicated by [illegible] [illegible], [illegible] [illegible] in 2 [illegible]
[illegible] Hd 2.1 [illegible] [illegible], [illegible] brown
[illegible] eye black [illegible] [illegible] smooth
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] a little [illegible] [illegible],
[illegible] [illegible] [illegible] with the other [illegible]
but the [illegible] [illegible] [illegible] [illegible] black
patch [illegible] 2-V 5-V fold [illegible] [illegible]
[illegible] [illegible]. [illegible] [illegible]
[illegible] [illegible] [illegible] of the [illegible]
[illegible]. This last [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] 6-13
[illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]. The [illegible] [illegible],
[illegible] [illegible] 2 3 [illegible] 6 [illegible] black [illegible], [illegible]
[illegible] [illegible] the 5-d [illegible] of 2 & 3 [illegible] and 5-V in 3
[illegible] [illegible] [illegible] [illegible] [illegible] foot. Hd brown [illegible]
[illegible] black. Seg. granulated. On white oak.
[illegible] [illegible] [illegible] [illegible] in [illegible]!
[illegible] March 27 1898

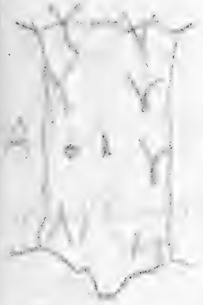
[illegible] a white oak [illegible] [illegible] May 22 1897
[illegible] [illegible] [illegible] in either end of [illegible]
[illegible] [illegible], all [illegible]. Body [illegible] colored
[illegible] head, and [illegible] whitish. Seg. [illegible] ([illegible])
B

[illegible] in crevice, [illegible] a white oak. The Cut.
[illegible] [illegible] May 9 1896 [illegible] circular [illegible]
holes scattered [illegible] [illegible] side. Hd. .25 mm
very pale brown eye black [illegible] pale setae.
Body [illegible] [illegible] whitish, [illegible] brownish, all
[illegible] colorless & [illegible] spines [illegible] [illegible]
[illegible] [illegible] [illegible] apparently arranged as [illegible]
Hd 4 (just [illegible]) all colorless [illegible] [illegible]
eye black [illegible] brown. Spines [illegible] [illegible]
[illegible] and [illegible] [illegible] branches, in
[illegible] [illegible] I. Seg. [illegible] annulate. [illegible]
[illegible] [illegible] [illegible]. 6-12, 13.
[illegible] [illegible] 6 [illegible] white, shining, [illegible] [illegible]
smooth brown [illegible] [illegible] Body [illegible]
[illegible] [illegible] [illegible] [illegible], [illegible]
[illegible], [illegible] [illegible] whitish, [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible].
[illegible] [illegible] [illegible] Hd .8 [illegible] [illegible]
Body [illegible] [illegible] [illegible] [illegible] [illegible], but
the [illegible] [illegible] [illegible] [illegible] the 5-V [illegible]
6

[illegible] complete. Upper shell [illegible]
[illegible] 7 [illegible] Hdg. 14, L3, 14 [illegible] spotted.
[illegible] May 22 [illegible] Spots small [illegible]
May 14 this 18 [illegible] scent white [illegible]
[illegible] Eating [illegible] spots [illegible]
[illegible] more [illegible]
[illegible] Head [illegible] 5 [illegible]
4 [illegible], often in 2 1 2 [illegible] L13 mm
[illegible] May 16. [illegible] [illegible]
May 16 [illegible] jacket. [illegible]
[illegible] [illegible] head [illegible]
[illegible] [illegible]

Died March 25 1897
Died March 26 1898

1BA



Solitary in [illegible] cage, [illegible]
Museum, [illegible] May 18, 1897. Head
with a [illegible] patch in D, [illegible]
[illegible] Spots [illegible]
Spots in E/1896 [illegible] a single one [illegible]
[illegible] May 19 [illegible]
[illegible] May 23 [illegible]
[illegible] May 24
Died at Portland [illegible] 1897

[illegible] May 25 [illegible]
[illegible] May 25 1897

[illegible]

7C Died April 5 1897

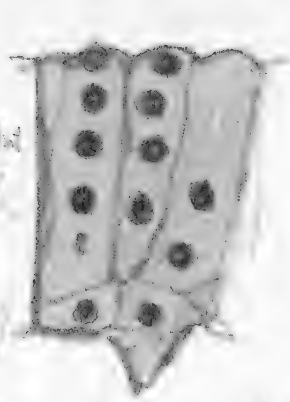
Probably a male of 4N. Like 4 A, [illegible]
[illegible] 1/8 [illegible] head [illegible] and
more [illegible] head [illegible] eyes [illegible]
at center. Body feel [illegible] [illegible]
darker (not [illegible]) 2 [illegible] [illegible]
[illegible] dot [illegible] large and [illegible]
a [illegible] darker [illegible] [illegible]
only visible [illegible] [illegible] [illegible]
[illegible] 2 [illegible] [illegible]
[illegible] head [illegible] [illegible]
[illegible] whole leg [illegible] [illegible]
[illegible] May [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
Died April 5 1897

[illegible] .35 .52 .[illegible] 1.[illegible] 1.5 2.7 [illegible] 66
[illegible] .6 .5 1.2 1.8 2.2

7D

[illegible] (all [illegible]) large yellow saw [illegible] hickory, [illegible] May 22 1896. [illegible] like 7C [illegible] leaf [illegible] abd. [illegible] [illegible] antennae long, 5 [illegible] shining black, antennae [illegible] white [illegible] [illegible] 2 [illegible] eyes. [illegible] bright shining [illegible] yellow, a little [illegible] of [illegible] of annulet. [illegible] the [illegible] a large [illegible] [illegible] (14) on the entire upper [illegible] including the [illegible] swollen [illegible] [illegible] and [illegible] shining black [illegible] long, but [illegible] [illegible], 2 [illegible] (annulet 14) [illegible] 2 [illegible] on 3d annulet [illegible]. [illegible] small black, [illegible] [illegible] [illegible]) [illegible] black [illegible] [illegible] [illegible]

3 dead pupae(?) Apr. 23 1898 [illegible] sp. near major Cress. but [illegible] [illegible].



[illegible] black [illegible] Abd. feet [illegible] Skin [illegible] and shining [illegible] [illegible]

[illegible] Egg [illegible] near the top of the very young leaf [illegible] upper [illegible] [illegible] [illegible] [illegible] on top [illegible] [illegible] [illegible] [illegible] May 22 1897. [illegible] 1.2 [illegible] 2.2 — [illegible] 1.6 — May 25 1897 [illegible] .6 [illegible] egg [illegible] [illegible] [illegible] [illegible] black [illegible] May 29 [illegible] 1.8 [illegible] 2 [illegible] 3d annulet [illegible] 2. ([illegible] 1.25 mm) [illegible]

...lnris.

...er yellow; rete...
...height .5 mm.
...ean.
...ints 4 to ...
...four S ... on the
...the subventral sub-
...ron lin, a very
...the thorax. On
...iv and v, ...

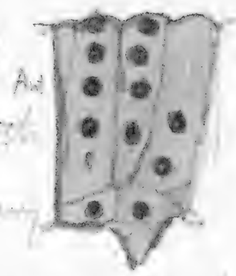
Stripes [illegible]
[illegible]
=4N
=6U
3. 4. 6. 8. 1.2 1.2

2 Co	.35	.52	.77	1.1	1.5	2.7	wt .66
Trend		.6	.8	1.2	1.8	2.2	

7D

Both, preparing at nine (trend) large yellow sac
in spring hickory, [illegible] May 22 1896.
Position like 3C, curled around front of
leaf towards [illegible] rounded, very rapid,
abd. [illegible] curved, not retracted
[illegible] anterior long, 5
[illegible], hd shining, black, antennae [illegible]
which reach in [illegible], wt. 2 mm. Body rep.
[illegible] 3 [illegible], higher shining opaque
yellow, a little [illegible] of [illegible]
[illegible] this [illegible], a long [illegible] on 0 [illegible]
the [illegible] represent [illegible] on its entire upper side
including the prominent [illegible] anal
[illegible] and the tubercle shining black
[illegible] only [illegible]
[illegible] [illegible] 2 [illegible] on 3D [illegible]
[illegible] [illegible] 5 [illegible]
[illegible]

3 dead pupae (1) Apr. 23 1896 [illegible]
sp. near major Cress. but too poor.



[illegible] Skin [illegible]
black [illegible] and shining
Abd. [illegible] bristles, [illegible]
Dec. [illegible]
Egg [illegible] indicated but appears [illegible]
near the tip of the very young leaf [illegible]
[illegible] leaves [illegible] middle.
[illegible]
Both 7D and 2C [illegible]
they can [illegible]
[illegible] very [illegible]
Pupa at Kenny Park Ky May 22 1897. Same
Hds. .8, 1.8 [illegible] hd 1.2 [illegible]
[illegible] hd 2.2 — Ash 1.6 —
Many at Cardinal Park May 25 1897 hd .6 mm
black [illegible]
[illegible] May 19 hd 1.8 same
[illegible] but after 2 [illegible] 13 [illegible]
[illegible] 2. (Ch hd 1.25 mm)
[illegible] (Pupa 1.8) [illegible]

Es gewinnt [illegible] zwischen
Spirrel [illegible] Nervenknoten
Stäbchen Stylus [illegible] .6 x .1 mm
der Spat klaffend [illegible] und [illegible]
[illegible] zu [illegible]
Hacker Verg. 12 1892 Hofmann [illegible] Flopo
3 w. 35 mm Text 6-11, 13 von [illegible] Text Stell
[illegible] alle [illegible] der Text [illegible]
[illegible] [illegible] Fehler [illegible]

Strikes in Site plot ~ Real Estate Issues

N
U
14
16

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A PROFITABLE STRIKE

.3 .4 .6 .8 1.2 1.12

[illegible] Sept 1 1897

7E (Backward 11.17; [illegible])

[illegible] May 23 1896 (Sat)

[illegible]

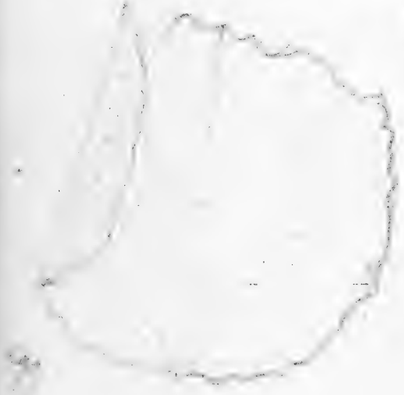
[illegible] see #7B

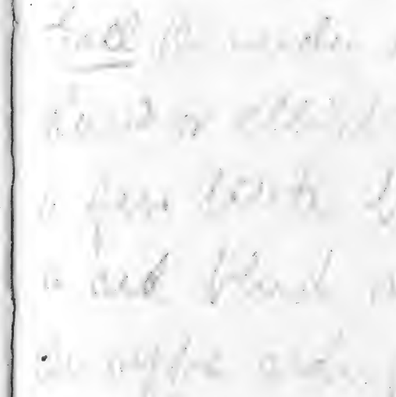
[illegible] 3T [illegible] (2T [illegible] 1E [illegible] 3T

[illegible] .34 .45 .57 .98 1.4 [illegible]
[illegible] .35 .5 .7 .95-1.0 1.3-1.4

7F

[illegible]





Calc.	.20	.29	.41	.59	.89	1.2	set .10
Meas.	.254	.3	.4	.6	.80–1.22		
	.14	.24	.4	.66		1.1	set .6
	✓	✓	✓ I	✓		✓	

B & F but by quite either, the deep
[illegible] heavier in the narrow beam
— 60 mm long — & about [illegible]
[illegible] reading exactly, [illegible]
[illegible] angle displacements [illegible]
[illegible]

7 I [illegible] pupa [illegible] [illegible] [illegible]) [illegible] [illegible] 1.2–1.4 [illegible] [illegible] [illegible] [illegible] [illegible] to the [illegible]. [illegible] [illegible] [illegible] [illegible] June 12 [illegible] 7 I [illegible] [illegible] 1.5

whitish, can feed in sl. curved pitting of egg slit. no [illegible] gets a [illegible] well folded [illegible], the leaf swollen between veins, [illegible] leaf. Egg slit [illegible] [illegible] [illegible] half [illegible] [illegible] [illegible] a [illegible] [illegible] June 3 Hd .4 [illegible] black [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible] black [illegible] [illegible] [illegible] [illegible] [illegible] black patch [illegible] [illegible] [illegible] present. [illegible] black [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] June 7 Hd 1.0 [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] 7 I 1897 [illegible] [illegible] [illegible]

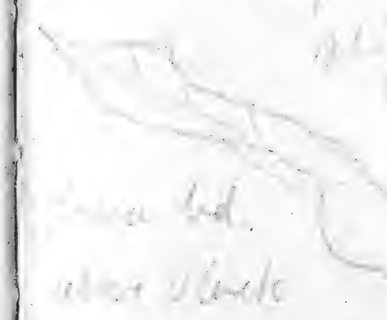
---

7 I on Salix [illegible] [illegible] Aug 24 1897

12

7 J [See 7 Q].

galls on smooth finely toothed willow at [illegible] Park June 2 1896. very like 7 G but about equally divided between surfaces of leaf, just a [illegible] [illegible] 7½ [illegible] [illegible] [illegible] [illegible] [illegible] about a [illegible] of 7 mm. [illegible] [illegible] [illegible] slight [illegible], green only slightly red [illegible], less red [illegible] [illegible] [illegible] than 7 G



[illegible] [illegible]. .55 mm, [illegible] [illegible], [illegible] [illegible] black [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] white, [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], [illegible] 6 [illegible] 12 [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible], band not [illegible] [illegible] [illegible] [illegible] [illegible]. [illegible]

small hd .35 pale & blackish shaded A
and not larger than the width as few eggs
[illegible] whitish [illegible], [illegible], [illegible]
[illegible] shining, [illegible] [illegible]. Head setting [illegible]
[illegible] whitish [illegible]; [illegible]
[illegible] are black [illegible] [illegible] and [illegible]
[illegible] (June)

Out of May 6 1897. Probably gracilis but
[illegible] and yellow and [illegible]

Calc. .19 .27 .39 .56 .80 ~~1.14~~ 1.17
Fd. .3 .4 .55 .8

7K

Allied to 7I on smooth willow Van Cortlandt
Park June 1896. Eggs deposited singly [illegible]
[illegible] forming a small pit like
swelling in type of 7H but less pronounced.
[illegible] mining on upper surface, [illegible] a [illegible]
[illegible] and [illegible] but slightly [illegible],
leaf rolls [illegible] tying in a close coil
[illegible] whole [illegible] [illegible]
[illegible] the whole [illegible]
[illegible] [illegible] [illegible] [illegible] in the
[illegible], but [illegible]. [illegible] in the [illegible]
[illegible]. [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible], the [illegible] eggs.

4th hd .5 [illegible] shiny black [illegible]
[illegible] pale [illegible] pale
[illegible] [illegible]
[illegible] [illegible]
[illegible] 5-11, B. [illegible] whitish,
[illegible] [illegible] [illegible]

[illegible]

[illegible] of small fish. Black. [illegible] small
[illegible] but [illegible] black.
[illegible] Some tubercle with distinct [illegible] [illegible]
[illegible]. Blackish [illegible] apparently [illegible]
[illegible] of slight [illegible]. Range [illegible].
[illegible] 80 (Sl. Ld. 55) [illegible] [illegible] [illegible]
[illegible] angle [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible]

[illegible]

[illegible] June 12 1916

SEC 10 D

7L

[illegible] in pounds [illegible] to have [illegible] off
[illegible] Hornbeam, Englewood, N.J. June 7 1916
[illegible] 11, 13; hd. 1.62 [illegible], [illegible], a
[illegible] patch at [illegible] [illegible] [illegible]
[illegible], [illegible] in the [illegible], [illegible],
[illegible] thing; no [illegible]. 4 [illegible]
[illegible]

[illegible] June 24 1916

Calc.	.25	.31	.50	.72	1.03	1.47	2.1	7/10
Fnd		.33	.50	.75	1.1	1.5	2.1	

7M

Like 2E but no black area [illegible] [illegible] to
white [illegible] [illegible] to [illegible] [illegible] [illegible].
Ore Corners Greenwood Lake N.J. June 21
'96. Eggs 3 [illegible] [illegible] under leaves of [illegible],
[illegible] [illegible] above [illegible] that [illegible] [illegible] [illegible]
[illegible] [illegible]. [illegible] [illegible] of [illegible], [illegible]
yellowish with [illegible] central area

I .1 Black [illegible] [illegible] [illegible] [illegible]
mouth. Body [illegible] brown [illegible] throughout [illegible] [illegible]
to [illegible] [illegible] [illegible] [illegible] on folds.
no [illegible] at all, feet 6.13. [illegible] [illegible]
[illegible] annulate [illegible] [illegible] [illegible] [illegible].

II 1.6 [illegible] IV 1.0 [illegible], [illegible] [illegible].

III 6.4, [illegible] [illegible] [illegible] [illegible]
between the eyes [illegible] yellow, [illegible] [illegible].

VI [illegible] (Pullitinala) black, yellow [illegible]
[illegible] [illegible] [illegible] on folds [illegible]
[illegible] yellow, [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] of [illegible] 2 and 4. The [illegible]
[illegible] this [illegible] [illegible] [illegible] before [illegible]
the [illegible] yellow 5th [illegible]. [illegible] pale
I hatched by a [illegible] hole in [illegible] [illegible]
[illegible] [illegible]. [illegible] .33 pale [illegible], [illegible] black,
[illegible] [illegible], [illegible], [illegible]
[illegible] [illegible] [illegible] in [illegible] slightly enlarged
[illegible], as they have [illegible] [illegible].
[illegible] 1.5 [illegible] 1.1 [illegible] [illegible] [illegible] [illegible])

II [illegible] .38 [illegible] [illegible] [illegible] ([illegible] [illegible])
[illegible] [illegible] [illegible] [illegible] [illegible] black
[illegible] annulate [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]. [illegible] [illegible] [illegible]
[illegible] .5 [illegible] black [illegible] [illegible]
[illegible] [illegible] 1896
[illegible] [illegible] [illegible]

More Chain Bridge, Va. June 25 1899
Out June 4 1900 Homoeoneura n. sp.

7N.

Curled in leaf of [illegible] wood [illegible] in the [illegible] Green-wood Lake N. J. June 2[illegible] 1896. [illegible] head [illegible] eye [illegible] shining black [illegible] [illegible] [illegible] gray, [illegible] [illegible] [illegible] white, [illegible] [illegible] yellow, [illegible] [illegible] feet colorless [illegible] white, [illegible] 24 [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] white. [illegible] pale, [illegible] black [illegible] white [illegible] [illegible] June 30 [illegible] 1.5 [illegible] [illegible] [illegible] [illegible] [illegible] immaculate [illegible] [illegible] [illegible] [illegible] [illegible]

More Chain Bridge Va. June 25 1899

White [illegible] [illegible] on butternut Greenwood Lake N. J. June 21 1896. Head large, [illegible] [illegible] [illegible] watery [illegible] [illegible] [illegible] zone [illegible] white [illegible], eye black [illegible] [illegible] [illegible] [illegible] feet colorless. [illegible] [illegible] white down. [illegible] [illegible] Down in [illegible] [illegible] 25d [illegible] food [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] June 27 [illegible] [illegible] [illegible] 6-[illegible] [illegible] [illegible] [illegible] white [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

Hole also 1.0, .2 and .6 same, [illegible] without the [illegible] [illegible]

7P — VF

[illegible] [illegible] young, [illegible] on young leaves of Alder, solitary, does not [illegible] through [illegible] of the [illegible] [illegible] holes in the young leaves only as the [illegible] of the [illegible] in the shade just where the leaves are thin and [illegible]. Riverside Park July [illegible]. [illegible] Rounded, [illegible] [illegible] [illegible] [illegible] along a [illegible] black patch [illegible] [illegible] [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible] small [illegible] [illegible] [illegible], not very strongly [illegible] [illegible] a slight [illegible] [illegible] middle of 2 and [illegible] along [illegible] [illegible] [illegible] white, [illegible] [illegible] [illegible] and [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] — VF Ont. Apr 23 1897 [illegible]

Dec., .27 .34 .49 .7 1.0

7Q

[illegible] [illegible] *Salix petiolaris* from Dr. [illegible] Gouverneur N.Y. [illegible] [illegible] [illegible] *Antennae* [illegible] [illegible] [illegible] [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] by leaf [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]. Size 7 to 10 mm (= 7U ?) [illegible] a [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] Sunderland River (58)

1R = 58

[illegible]

[illegible]

[illegible]

maturity they are hollowed to a shell usually. Gall green inside.

[illegible] 35 mm, shiny dusky blackish [illegible], uniform bright emerald green, 3 annulate minutely setiferous. Anal end slightly tapering rounded. Thoracic feet large, abd. very small [illegible] 6-11, all emerald green like body.

[illegible] 95 [illegible] blackish, [illegible] eye black. Body yellowish green, [illegible] canal, all [illegible] minutely annulate, minutely setiferous, [illegible] Anal end [illegible] rounded, brown [illegible] Feet [illegible] 6-11. [illegible] evident. Larva cuts a hole and [illegible] gall [illegible] gall [illegible] [illegible] gall grows up [illegible] swelling, a leaf [illegible] in the center on the upper side [illegible] hole through leaf. [illegible] 4½ × 2 [illegible] .6 × .2 mm irregular [illegible] translucent white. [illegible] brown [illegible] in a gall [illegible] July 5 1896 [illegible]

77

Pamphila? [illegible] 3 [illegible] July 19 1896. Head 2 mm round, higher [illegible] shiny brown black [illegible] Body slightly [illegible] a broad irregular [illegible] gray [illegible] 2-13, [illegible] black spots [illegible] trachea [illegible] annuli 2-4 [illegible] a large [illegible] anal patch. [illegible] thoracic feet black, abd 6-13. [illegible] [illegible] 3. Separate [illegible] annulate [illegible] minute black points [illegible] [illegible]

Stage before (Shed July 21, same as = 7T)
I believe [illegible] with the preceding
(7T) as it [illegible] of same brood. Hd 1.5
[illegible] [illegible] [illegible]. Body [illegible]
white, a little [illegible] [illegible],
except for a faint dusky [illegible]
[illegible] cloudy, [illegible] with
[illegible] points on 1,2,4. [illegible] feet
[illegible] with 5-3

Mature stage. Head [illegible] whitish, shaded
with black [illegible], [illegible] black [illegible] 2,2
[illegible] [illegible] 5-8 [illegible] yellowish
white, a [illegible] and [illegible] [illegible]
[illegible] black [illegible] bands, [illegible]
[illegible]. [illegible] faint blackish
[illegible] [illegible] [illegible] [illegible].
June [illegible] Aug 5 1890

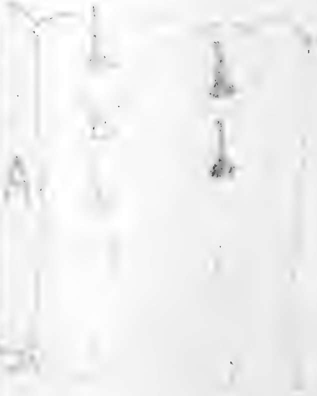
[illegible] at the front all yellowish [illegible]
[illegible] [illegible] [illegible] bands [illegible]
[illegible] [illegible] [illegible]. Thorax & 11-12 yellower

[illegible]

[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] 5 [illegible] [illegible]
[illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]

Ova white [illegible] [illegible] [illegible]

Nov June 29 1897. [illegible]. Black 5 [illegible]. Body greenish
[illegible] small [illegible] pale except at the [illegible].



July 1 Hd. 1.2 [illegible] black
Body greenish, cloudy yellow
[illegible] on 11-12, 5 black
[illegible] [illegible], & [illegible]
and [illegible] [illegible]
[illegible] [illegible]. [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] a little [illegible] [illegible]
[illegible] black. Nos 1.6 same

7V =6E?

[illegible]

[illegible] 1891 Murphy Kirby Clabe [illegible]

[illegible] = Teachers often abbreviate [illegible]

7W

[illegible]

7X

[illegible]

Hermon Sept 16 1896. Parents 7H and 6F
[illegible]

7Y

[illegible]

Sept. 16, 1896

[illegible]

Hermon N.Y.

Isodyctium subgregarium n.sp.

8 A [illegible]

Allied to E and J B on rock oak, Pelham Manor N.Y. May 18 1897.

Head .8 mm green with a large black patch on each side and on [illegible] clypeus. [illegible] spines all short, all black on [illegible] [illegible] 5-8 [illegible] which are pale, [illegible] pale, no other [illegible]. [illegible] [illegible] than normal several on [illegible] [illegible] where [illegible] were any at all.

Skin finely granular [illegible] ½ inch [illegible]. Spines arranged exactly as in J E, [illegible] May 19 Head 1.2 just the same, patch on clypeus [illegible]. Spines black, distinct. [illegible] 3-8. [illegible] very short, [illegible] [illegible] (arrangement [illegible]) May 21 Head 1.8 Same, segs 3 [illegible] spines on 2d and 4th [illegible] on 2d [illegible] on 4th, [illegible] Spines on [illegible] 5-8 [illegible] also black. [illegible] spines [illegible] ½ in. [illegible] getting large. May 23 [illegible] long

[illegible] spines [illegible], segs 5 [illegible] 2 spines on 2d annulet. [illegible] green [illegible], a little [illegible], [illegible] indistinct paired streaks [illegible] distinct. [illegible] on white oak and black oak at [illegible] Park May 22 1897. Subgregarium [illegible] as above, just the same, and same spines as in figure. In one the [illegible] had rather broad black bases]

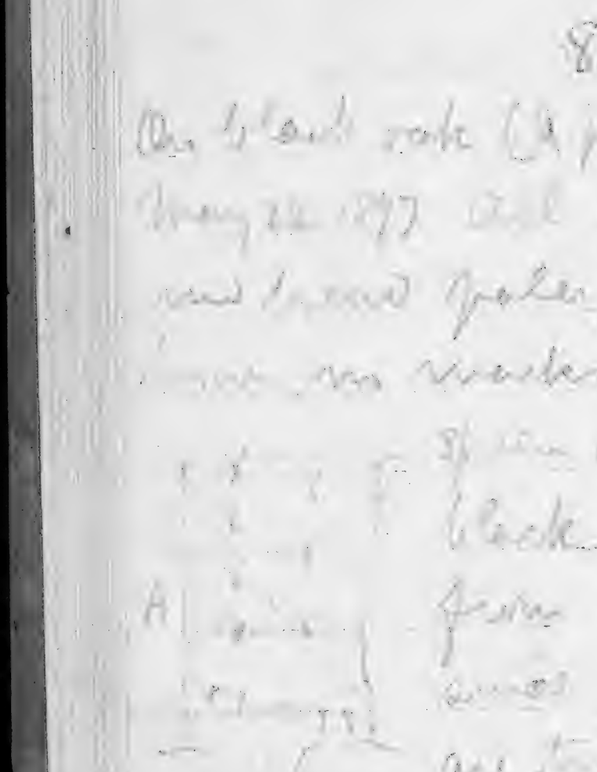
May 25 [illegible] green [illegible] black [illegible] Head 2.4 Spiny, [illegible] of spines indicated by [illegible].

[illegible], N.J. June 6, 1897 Head 1.2 [illegible] June 7 " Head .8 " [illegible] on 2 all black on [illegible] annulet. [illegible] Head 2 June 10. just [illegible] [illegible].

Out March 25 1898

8B

On black rock (A pulmatus?) Nanaimo Harbor
May 22 1897 Dull green from [illegible] Spm
and brown patches; eye black, remainder
[illegible] Hds. 1.4, .7, 1.0 mm



Of size as in 8A, no trace of
black. Body a little whitish
from diffuse pat. [illegible]
[illegible] as usual, the [illegible]
are [illegible]. (Both [illegible] rest
[illegible] and dead)

Another Black rock Nanaimo Harbor [illegible] June 7
1897 hd. .7 mm. [illegible] June 11 hd 1.0
2 more on [illegible] hds 1.4 all green. In one all
[illegible] and in other one the [illegible] & [illegible]
were [illegible]. Yellow fat granules all over the
[illegible], masking d. vessel content.
June 18 [illegible]. Smooth [illegible] with [illegible] the
[illegible] end black, [illegible] green for [illegible] [illegible]
[illegible], hd 1.3 mm
Out Apr 11 1898

8B

One black rate (A. palustris?) Bemis Park May 22 1897 color green from blue-green and brown paler; eye black, nostrils brown, no markings. Hds. 1.4, .7, 1.0 mm

Spots as in 8A, no trace of black. Body a little whitish from diffuse fat. In this and no case of the spots are black. (Both varied not sex and dead)

Another Black rate Rockhaven L. J. June 7 1897. Hd. 7 mm. Dec June 11 Hd 1.0

2 more on Q. Anchorage Hds 1.4 all green. In one all but ⓐ and in other all the normally Y spots were tinged. Yellow fed frogs, all on the right, matching d. vessel contrast.

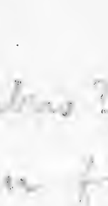
June 18 albinotic. Smooth pale yellowish green, the dorsal and ventral, matching some for Y.S. Slightly shining, no melanic; hd 1.3 mm

Out Apr 11 1898

8C = 7E

Building Bemis Park Wy. May 22 1897

Just like 7E but spine more Y.S. Yellow green dorsal vessel



* dark, green, spine whitish. Eye black, jaw brown. W. hds. 1.3, 1, .7, 1.4. Sometimes (*) has only one prong, two segments of equal lens. (coloration as for 7E) In two of spots under two tufts and puffs or pots. Two stood and some not stay very at least on Bowl edge.

A big one 14½ mm. long hd 1.4 at Bedford Park, May 25 1897. Well Y-ed.

Out March 27 1898

[illegible]

[illegible]

[illegible]

Will you drop in and see me sometime when convenient soon?

Prudden.

8D

Solitary on hickory, Bronx Park, [illegible]
May 22 1897. Head [illegible],
feet 6-12, 13, [illegible]
[illegible] 1-4 [illegible] with green
[illegible], eye black, mouth brown.
Joints 5 annulate, smooth, but a
[illegible] on [illegible] and [illegible]
[illegible]
[illegible] a little [illegible] of [illegible]
[illegible]
[illegible] few [illegible].
[illegible]
[illegible] and [illegible]
[illegible] well [illegible], [illegible]
and long, [illegible]
[illegible]
[illegible] in [illegible]
[illegible], but not [illegible]
[illegible] pale green, [illegible] folded. [illegible] white
eye black.

[illegible] 1-11, 2-4 [illegible]
[illegible] (2, 3, 12, 13) [illegible]
on black [illegible]. Spines [illegible]
[illegible] very [illegible]
[illegible]

Laid March 24 1898 8 E

[illegible] with 8A [illegible] differentiated [illegible]

On white oak. [illegible]
[illegible] blackish [illegible]
black spines. 2-and, 5-8 [illegible]
and [illegible] greenish white
[illegible] spines. Spines on [illegible]
[illegible] black [illegible] spines [illegible]
[illegible]. [illegible] in [illegible] and [illegible],
[illegible]
in [illegible] 1-2 [illegible]
[illegible] very [illegible]
[illegible]
[illegible] May 28, [illegible]
[illegible]
[illegible] translucent [illegible]
[illegible]
on purple shade [illegible] June 1897
[illegible] white oak, solitary,
but [illegible] black [illegible]
[illegible] 4 black [illegible]
[illegible] shaded
[illegible] white oak [illegible]

8 F

Little Blennocampids solitary on the back of young leaves at the end of the fresh shoots of the ~~[illegible]~~ [illegible], nearly all gone but found two still left May 25 1897. [illegible] Park, N.Y. Hd pale green a rounded patch on each lobe outwardly, a double spot [illegible] eye black; w. 8 mm. Body all green without marks [illegible] [illegible] mixing with the [illegible] pale spines. Eat round holes [illegible]

Shed May 26 Hd 1 mm. just the same

Shed May 28 Hd 1.3 all green, eye black a trace of a rounded darker patch on each lobe. Body [illegible] green spines pale. (Not just shed, later on black spots came on hd and larva all as before)

June 4 (resting [illegible]) Smooth, shiny, [illegible] distinctly 4 annulate, watery green [illegible]. All green, eye black. Hd 1.3 mm

---

[illegible] [illegible] granulated / [illegible] [illegible], [illegible] [illegible] shades. Hd 1.6 as high as wide, sides [illegible]. D. vessel [illegible], length 12 mm [illegible] [illegible] [illegible] in rotten wood. [illegible] [illegible] between G leaves, [illegible] [illegible]

solitary, sitting on upper side of large [illegible] black oak, [illegible] L.I. June 5 1897. Head 1.9, all [illegible], black except mouth and a small [illegible] line above △ which are green. [illegible] as in E 1896, quite large and [illegible], all black even the [illegible] a 2^d annulet and the ant and ant. of 2 upper S-V [illegible] blackish. Larva S-V [illegible] pale. Body translucent green, [illegible] annulate. Feet 6-13.

[illegible] 5 Hd 1.8 ([illegible] hd 2.05) Same Y-S long [illegible] [illegible], as long as large than [illegible] [illegible] [illegible] pale except [illegible] upper S-V which [illegible] [illegible] [illegible] in some [illegible]. Eat holes [illegible] [illegible] [illegible] on upper side. [illegible] [illegible] but pale shade surround. △, lower [illegible] 6th annulet [illegible] black. Black spines [illegible] large. Perfectly solitary only one on a tree. [illegible] upper side and [illegible] [illegible] the [illegible] leaf. [illegible] [illegible] June 6 [illegible] together [illegible] IV hd 1.0 [illegible] III [illegible] [illegible] [illegible]

II [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] 27 1898

Calc .38 .55 .78 1.12 1.6 rat .7
Found .4 .6 .8 1.15 1.6

8 H

June 5 1897

Solitary edge eater on large smooth black Quercus oak, "[illegible] Hole", Bellport, L.I. Feet 6-11, 13 small slender, used, thoracic and legs. Segs irregularly indistinctly 6-annulate, last annulet very narrow, the others sub-equal. Anal plate rounded, slightly centrally notched, no visible prongs.

Hd. .8 mm rounded whitish, eye black, a dark shade up behind eye. Body translucent, watery greenish, no tubercles but black patches at base of thoracic feet. Spiracles [illegible]
moult 1.15

Hd 1.2 Same. Dusky shade above & behind eye small. Anal plate projecting, truncate concave ⊐. No prongs. Translucent whitish green, marks at base thor. feet.

Hd 1.4 Same but larger, clear green, [illegible] [illegible], annulet [illegible] [illegible], [illegible] evident. Hd green eye black, small brown marks at base of thoracic feet slender, small. Anal plate truncate

Out Apr. 7 1898

[illegible] [illegible] [illegible]

[illegible] [illegible] [illegible], no prongs. [illegible] green [illegible] 13. [illegible] [illegible] not [illegible], dorsal vessel obscure. Head [illegible] [illegible] dull; body also dull. [illegible] feet colorless. No setae ½ inch obj. [illegible] Hd 1.5 Same, not [illegible] [illegible]. [illegible] [illegible] [illegible] from head. Another 1.6 [illegible] large, trace of black [illegible] on [illegible] [illegible] yellowish [illegible] [illegible] from the [illegible] feet [illegible]. Spiracles dusky [illegible] leaf Hd .6 whitish, dull, eye black, [illegible] [illegible] [illegible] [illegible] [illegible] apex. Body [illegible] [illegible] [illegible] whitish, [illegible] [illegible] [illegible], bases of the feet black marked. Anal plate truncate, concave, the [illegible] rim edged with dusky. [illegible] [illegible] .53 Same, [illegible] [illegible] [illegible] △ [illegible] on edge of leaf just before point of apex [illegible] [illegible] 5 [illegible] [illegible], [illegible] [illegible], yellowish [illegible] stage [illegible] on leaf. Hd [illegible] [illegible] [illegible] slight [illegible] [illegible] whitish, eye black [illegible] [illegible] [illegible] [illegible] Body whitish [illegible] [illegible] [illegible] [illegible] [illegible] annulate [illegible] [illegible] Black [illegible] feet [illegible] in next stage.

8 I

Received
On smooth large black rock Belleport I. J.
June 6 1897 Sandiver's Road. Large adult
slightly curling tentacles extend to 7 A
Hd, 1.8 feet red brown, eye narrow black
smooth darker brown. Feet 6-13, underside
deep regularly distinctly granulate.
Color somewhat fleshy brown, a lateral
row of irregular black spots on granulate
1 (small) 2-3 (large), 4-5 (each small), the large
one behind in row 2 opp., all ahead in 13, small
patch [illegible] spots. Stripe in 2d granulate
[illegible] black spots [illegible]; a dis-
tinct black patch in 4th sp. fold and
[illegible] one in post. Feet and [illegible]
immaculate. Black mark at base the post
dorsal vessel and paired dot in [illegible]
darkly translucent. [illegible]
[illegible] June 17]
[illegible] and [illegible]
[illegible] Rest [illegible]
Cent March 28 1898 Hemiclonus allid [illegible]
[illegible]

[illegible] Hd & all [illegible] June 7. [illegible]
[illegible] leaf [illegible] Hd 1.1

8 J

[illegible] Bulbing Shoreline I. J. June
6 [illegible] several together sitting flat on
[illegible] and eating whole leaf from after
[illegible] Resolutely. No adult feet, but
[illegible] sucker. Dorsal feet spreading
[illegible] elongate body deeply flexible.
[illegible] 1.1 round strong black. No post
[illegible] body dark pale fleshy shading
[illegible] large black in [illegible] and 12-13
[illegible] black spotted. Spot in 4 obscure
[illegible] 5, in 1 2 dots, in 2 (opposite), 3 and 4
[illegible] 4 & 5 dot all outlined with [illegible]
[illegible] Three large confluent forming one
[illegible] irregular granulate patch; a large
[illegible] spot behind stripe, a spot in post
[illegible] a few [illegible] and a curious [illegible] shaped
[illegible] patch outlined one in large spot behind it
[illegible] and several fine black [illegible]
[illegible] black [illegible] in the spot. Spots in
[illegible] in large patch.

Ardis infrequens ♂

8K

Blennocampid on white oak Berkshire Co. June (1897). Spun 3 or 2 annulet. Head immaculate, eye black. Body green, d. vessel darker; spines moderate Y'ed, normal, pale except 2, 3, 12, 13 which have black limbs and ① the whole length is touched with black at base of limb of Y leaving apex and shaft pale. Dark pale. Hd. 1.3 mm (Ht. Hd 1.5) Second June Hd 1.6 green, eye black nearly spun all pale except the black portion at base of limbs at end of body as before. Body green, faintly annulate, another Berkshire, white oak June 10. Hd 1.5 = smaller (Ultimate) Hd 1.6 shaping brown, cocoon tinted eye black. Body dark green, waxy green for spines, indistinctly annulate; single dorsal dark.

Another bred limbs off 9 & d. Spun black the whole length Hd. 1.6

Dark

8L

Blennocampid feeding on white oak Berkshire Co. June (1897). 2 spines on second annulet. Hd. black except pale [illegible] and streak above ◻. Body green spines moderate, Y'ed all black including barbs and shaft and both the spines on 2nd annulet and as far down as 2nd Y'ed [illegible] is not [illegible], black. Like 8G but white pale and ordinary limbing and shaft and tip Y'ed

Hd 1.5 (Ht Hd 1.0) ⑤ shedding a pale spot at apex of shaft as that not here and limbs [illegible] and. Spots on ⑤ 4 annul. more largely [illegible] Berkshire June 12, [illegible] Y's. Yellow June 14 white [illegible] for [illegible] white green [illegible], d. dorsal dark. Hd. 1.4

Dark June 15. 1898

Can't tell if they from 8G

5g Oct April 14, 1898

Pteronus americanus Harlett

8M

Like 8H but on white oak; edge eating. Nematid. Hd round, eye black, a very faint posterior dark shade, w.g in bolsters, sordid, scarcely caramel tinted. Beg colules translucent, dirty from frass, incisure folded. Segs obscurely 4-annulet smooth. Anal plate concave truncate as in 8H, no prong. Large black spot at base of colules, thoracic feet. Abd 6-11. Tracheae white.

June 11 Hd 1.3 Colules, faintly yellowish, eye black under lens a trace of brown line behind it, looking internal. Body very sordid from frass colored in green only in ventral, colules translucent, tracheae folds a mere white. Anal plate as before.

Two spun from cocoons June 15. Anoth had hd 1.5 distinct black shaded line from behind ocellus to vertex. Beg sordid greenish annulet dull incisure folded, incisure annulet shiny. Black at base of thor. feet. Not so green as 8H otherwise no difference. Often a black shade on first two annulet of 2. Black in bred in last stage.

Coleoptera Priorsmorphus caleeatus Say (E.A. Schwarz) 1899

8N

Sent cuts in back of mid rib of Sassafras leaf, Brookhaven L.I. June 11 1897. Set 1 to back of leaf in centre of midrib, 6 cent distant about their own length = .6 mm. Pass in and also somewhat forward (toward apex) from these cuts a blotchy brown mine spread, handed, 5 larvae in one, 2 in the other, swing toward apex leaf. June 15 gun long in both bodies that with the many larvae 3 mm wide, other 1 mm. Mine under lower epidermis. Stray of cocoons from the beetle. Larvae flat, colules, bds. 3 t. Mine mine of ½ leaf, irregular, the surface under apart. Larvae white opaque maggots no feet, stray of frass adhering to long exserted anal tube. Head part retracted, flat, brown lobes, ⅄ and labrum distinct, short antennae no ocelli seen.

Cocoons in the mine, spherical like large short gregarious, clothed in the hair like frass strings, then of reticulate brownish silk. Out June 29 1897 Little black weevils

80

Perhaps 8H or 8M but on Q. tinctoria not common, rarer even than either, Burkhaven L. I., (taken June 17). Hd 1.6 ovoid greenish with a heavy black band of each side behind eye, a dotted band on vertex, the antennae pale. Body green, like 8H, not very ovoid nor too transparent; black wedges at base of thor. feet. Segs irregularly 6-annulate, bringing appearance on 3rd annulet, perhaps the extended due to this very fat larva (annulets 5-annulate). No other markings, anal plate as in 8H. Tracheal lines visible. Differs from 8H only in hanging head marked in last stage. Det Apr 18 1898 Pleromus integer

8P. Shed July 26 Hd 2.5 Same, slightly paler, but d-to spindle black, leaden green centrally d. faint on 2 ant. & before black anal plate. Feet all white, black patch on lower surf. folds. 7-annulate, neatly, no spines.

Shed day (seen just after) Hd 2.4 all faded away quite dull green. A d. darker band on both lateral line. Eye black. Neatly 7 annulate, smooth

8P

Tentredo? on hickory, Bronx Park 29 July 2 1897. Feet 6-13 can curl. Hd. of pale testaceous, a little darker on vertex, a large black spot on eye. Body tapering fast, finely annulate, green glass white, no markings, the dorsum appearing green from the food. The feet colorless.

Shed July 4 Hd 1.2 whitish, eye black, a dark shaded spot on vertex. Thoraxes enlarged, body whitish finely 7 annulate, the dorsum green from food.

July 14 Hd 1.6 whitish, eye in large black spot a large smoky black patch on vertex. Body all opaque white, 7 annulate neatly, food green, no marks. Anals with tail on back (another Burkhaven on hickory July 15)

Shed July 20 Hd 2.1 white shiny, a large black patch over eye, much behind, rounded greenish black patch on vertex finely white pruinose. Body white and d. and sd band of fine blackish shade bands 2-13. Anal plate black. Feet all white 6-13 Abd neatly annulate (seen Sa)

Det Apr 22 1898, Macrophya externa